

International table			United States table		FCC use designators	
Region 1 -- allocation GHz	Region 2 -- allocation GHz	Region 3 -- allocation GHz	Government	Non-Government	Rule part(s)	Special-use frequencies
(1)	(2)	(3)	Allocation GHz (4)	Allocation GHz (5)	(6)	(7)
46 9 – 47 MOBILE S5 553 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION- SATELLITE S5 554	46 9 – 47 MOBILE S5 553 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION- SATELLITE S5 554	46 9 – 47 MOBILE S5 553 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION- SATELLITE S5 554	46 9 – 47 MOBILE MOBILE-SATELLITE (Earth-to-space) RADIONAVIGATION- SATELLITE S5 554	46 9 – 47 FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) RADIONAVIGATION- SATELLITE S5 554	RADIO FREQUENCY DEVICES (15)	
47 – 47.2 AMATEUR AMATEUR-SATELLITE	47 – 47.2 AMATEUR AMATEUR-SATELLITE	47 – 47.2 AMATEUR AMATEUR-SATELLITE	47 – 47.2	47 – 47.2 AMATEUR AMATEUR-SATELLITE	AMATEUR (97)	
47.2 – 50.2 FIXED FIXED-SATELLITE (Earth-to-space) S5 552 MOBILE S5 149 S5 340 S5 555	47.2 – 50.2 FIXED FIXED-SATELLITE (Earth-to-space) S5 552 MOBILE S5 149 S5 340 S5 555	47.2 – 50.2 FIXED FIXED-SATELLITE (Earth-to-space) S5 552 MOBILE S5 149 S5 340 S5 555	47.2 – 50.2 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE S5 555 US264 US297 US342	47.2 – 50.2 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE S5 555 US264 US297 US342	SATELLITE COMMUNICATIONS (25)	
50.2 – 50.4 EARTH EXPLORATION- SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive)	50.2 – 50.4 EARTH EXPLORATION- SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive)	50.2 – 50.4 EARTH EXPLORATION- SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive)	50.2 – 50.4 EARTH EXPLORATION- SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive) US263	50.2 – 50.4 EARTH EXPLORATION- SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive) US263		
50.4 – 51.4 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Mobile-Satellite (Earth-to-space)	50.4 – 51.4 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Mobile-Satellite (Earth-to-space)	50.4 – 51.4 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Mobile-Satellite (Earth-to-space)	50.4 – 51.4 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE MOBILE-SATELLITE (Earth-to-space) G117	50.4 – 51.4 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE MOBILE-SATELLITE (Earth-to-space)		
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INTERNATIONAL FOOTNOTES

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1. New "S" Numbering Scheme

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S5.340 All emissions are prohibited in the following bands:

1400-1427 MHz,

2690-2700 MHz except those provided for by Nos. S5.421 and S5.422,

10.68-10.7 GHz except those provided for by No. S5.483.

15.35-15.4 GHz except those provided for by No. S5.511.

23.6-24 GHz,

31.3-31.5 GHz.

31.5-31.8 GHz in Region 2,

48.94-49.04 GHz from airborne stations.

51.4-54.25 GHz.

58.2-59 GHz,

64-65 GHz.

86-92 GHz.

105-116 GHz.

140.69-140.98 GHz from airborne stations and from space stations in the space-to-Earth direction.

182-185 GHz except those provided for by No. S5.563.

217-231 GHz.

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S5.552 The allocation of the spectrum for the fixed-satellite service in the bands 42.5-43.5 GHz and 47.2-50.2 GHz for Earth-to-space transmission is greater than that in the band 37.5-39.5 GHz for space-to-Earth transmission in order to accommodate feeder links to broadcasting satellites. Administrations are urged to take all practicable steps to reserve the band 47.2-49.2 GHz for feeder links for the broadcasting-satellite service operating in the band 40.5-42.5 GHz.

S5.553 In the bands 43.5-47 GHz, 66-71 GHz, 95-100 GHz, 134-142 GHz, 190-200 GHz and 252-265 GHz, stations in the land mobile service may be operated subject to not causing harmful interference to the space radiocommunication services to which these bands are allocated (see No. S5.43).

S5.554 In the bands 43.5-47 GHz, 66-71 GHz, 95-100 GHz, 134-142 GHz, 190-200 GHz and 252-265 GHz, satellite links connecting land stations at specified fixed points are also authorized when used in conjunction with the mobile-satellite service or the radionavigation-satellite service.

S5.555 *Additional allocation:* the bands 48.94-49.04 GHz, 97.88-98.08 GHz, 140.69-140.98 GHz, 144.68-144.98 GHz, 145.45-145.75 GHz, 146.82-147.12 GHz, 250-251 GHz and 262.24-

262.76 GHz are also allocated to the radio astronomy service on a primary basis.

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UNITED STATES (US) FOOTNOTES

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US342 In making assignments to stations of other services to which the bands:

13360-13410 kHz	4825-4835 MHz*	48.94-49.04 GHz*
37.5-38.25 MHz	14.47-14.5 GHz*	97.88-98.08 GHz*
322-328.6 MHz*	22.01-22.21 GHz*	140.69-140.98 GHz*
1330-1400 MHz*	22.21-22.5 GHz	144.68-144.98 GHz*
1610.6-1613.8 MHz*	22.81-22.86 GHz*	145.45-145.75 GHz*
1660-1670 MHz	23.07-23.12 GHz*	146.82-147.12 GHz*
3260-3267 MHz*	31.2-31.3 GHz	262.24-262.76 GHz*
3332-3339 MHz*	36.43-36.5 GHz*	265-275 GHz
3345.8-3352.5 MHz*	42.5-43.5 GHz	

are allocated (* indicates radio astronomy use for spectral line observations), all practicable steps shall be taken to protect the radio astronomy service from harmful interference. Emissions from spaceborne or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 343/S4.5 and 344/S4.6 and Article 36/S29 of the ITU Radio Regulations).

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PART 25--SATELLITE COMMUNICATIONS

1. The authority citation for Part 25 continues to read as follows:

AUTHORITY: Secs. 25.101 to 25.601 issued under Sec. 4, 48 Stat. 1066, as amended; 47 U.S.C. 154. Interpret or apply secs. 101-104, 76 Stat. 419-427; 47 U.S.C. 701-744; 47 U.S.C. 554.

2. The table and footnotes in paragraph 25.202(a)(1) are revised to read as follows:

§ 25.202 Frequencies, frequency tolerance and emission limitations.

(a)(1) *Frequency bands.* The following frequencies are available for use by the fixed-satellite service. Precise frequencies and bandwidths of emission shall be assigned on a case-by-case basis.

Space-to-Earth (GHz)	Earth-to-space (GHz)
3.7-4.2 ¹	5.925-6.425 ¹
10.95-11.2 ^{1,2}	13.75-14.0 ⁴
11.45-11.7 ^{1,2}	14.0-14.2 ⁵
11.7-12.2 ³	14.2-14.5
17.7-19.7 ¹	27.5-29.5 ¹
19.7-20.2	29.5-30.0
37.5-38.5 ⁶	48.2-50.2 ⁶
40.5-41.5 ⁷	

¹ This band is shared coequally with terrestrial radiocommunication services.

² Use of this band by the fixed-satellite service is limited to international systems, *i.e.*, other than domestic systems.

³ Use of this band by the fixed-satellite service in Region 2 is limited to national and subregional systems. Fixed-satellite transponders may be used additionally for transmissions in the broadcasting-satellite service.

⁴ This band is shared on an equal basis with the Government radiolocation service, grandfathered space stations in the Tracking and Data Relay Satellite System, and until January 1, 2000, spaceborne sensors.

⁵ In this band, stations in the radionavigation service shall operate on a secondary basis to the fixed-satellite service.

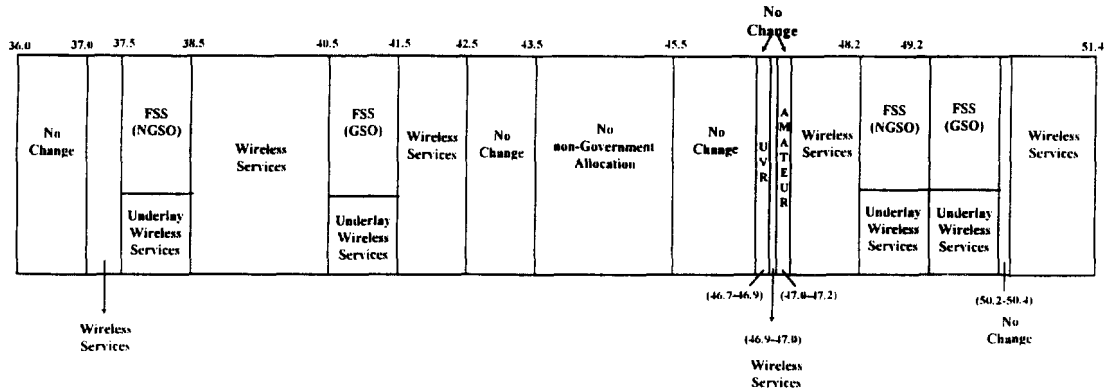
⁶ Fixed and mobile services may also be licensed in this band.

⁷ Broadcasting, fixed, and mobile services may also be licensed in this band.

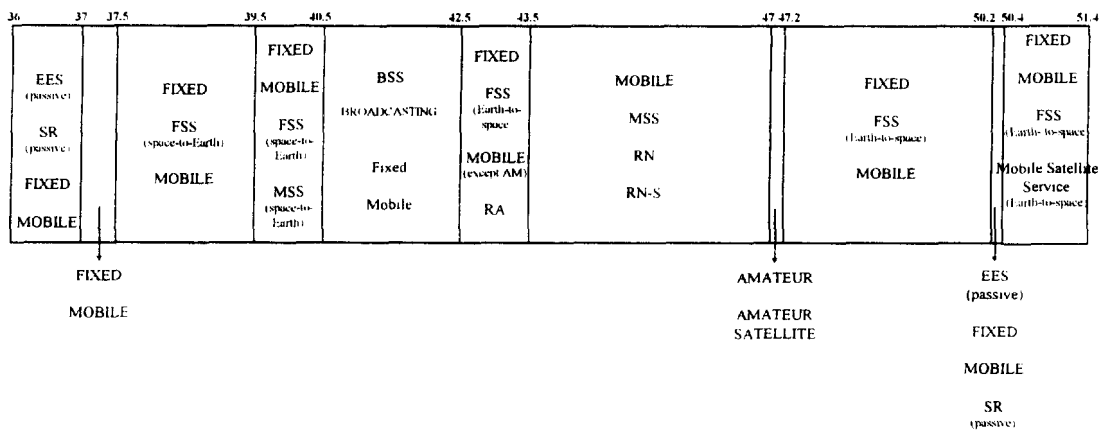
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Appendix C: CHARTS

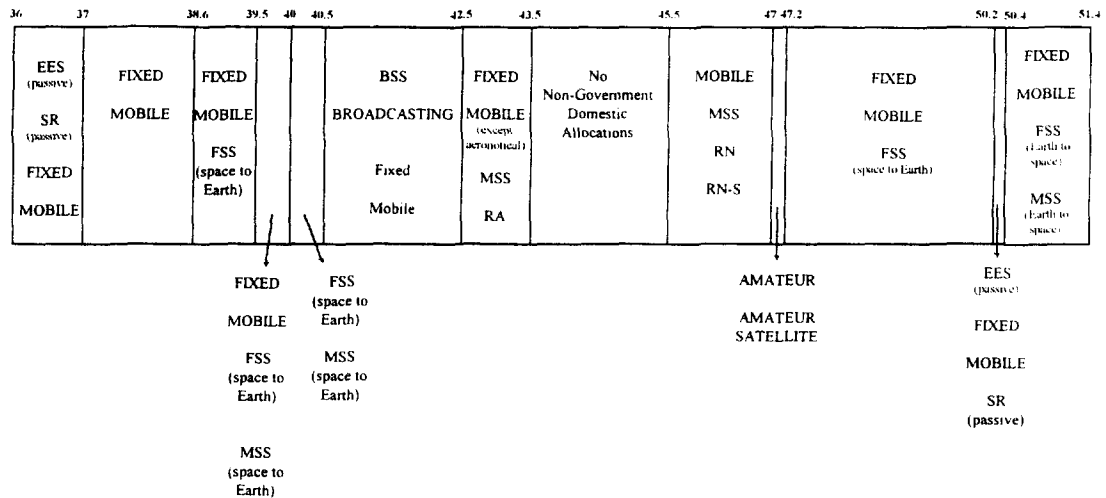
BAND PLAN



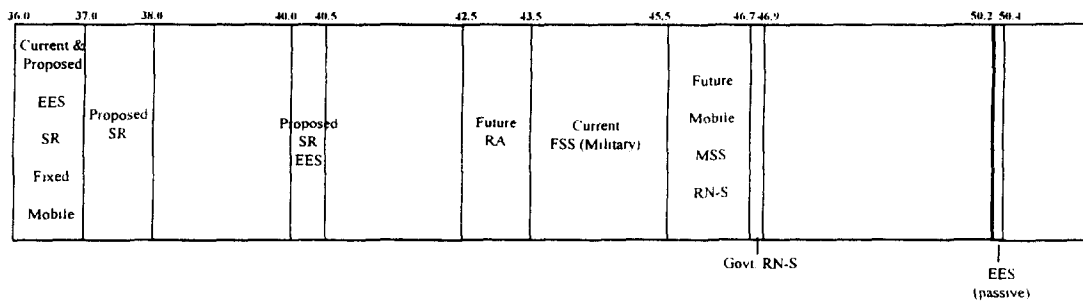
EXISTING INTERNATIONAL ALLOCATIONS*



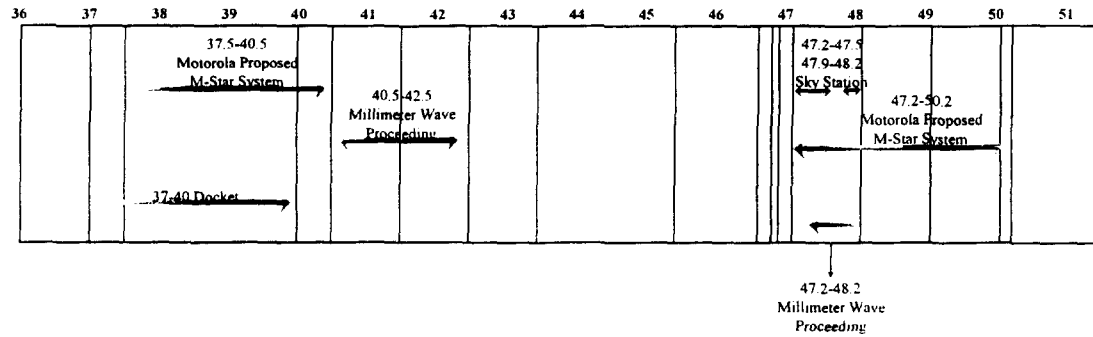
EXISTING DOMESTIC, COMMERCIAL ALLOCATIONS



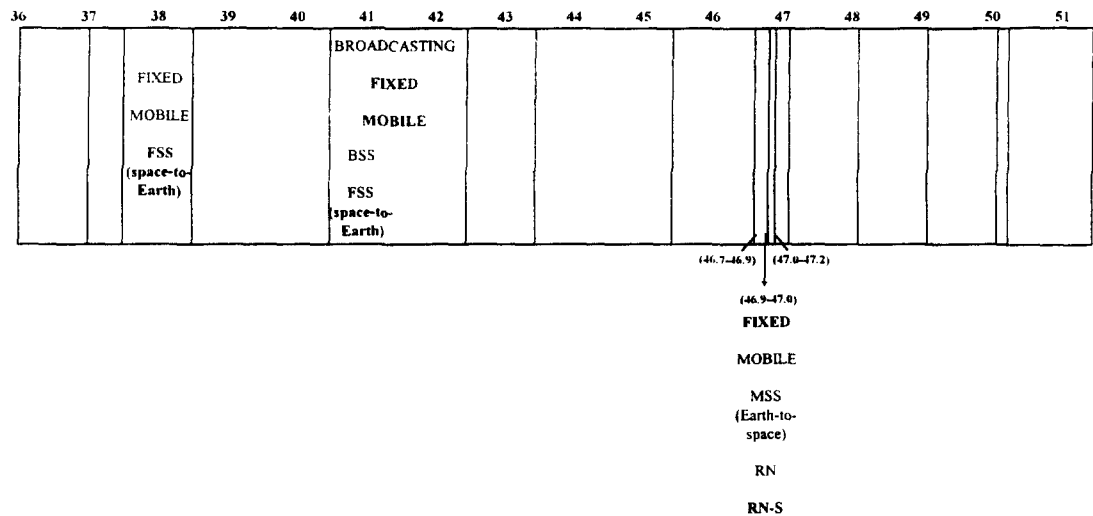
CURRENT AND PROPOSED GOVERNMENT USES



PRE-EXISTING PROPOSALS & APPLICATIONS



PROPOSED DOMESTIC ALLOCATION CHANGES*



PROPOSED INTERNATIONAL ALLOCATION CHANGES

Figure 1 is a frequency allocation chart for the 40.5-47.5 GHz band. The chart is divided into several frequency blocks, each with a specific service allocation. The frequency range is marked from 36 to 51 GHz. The allocations are as follows:

- 40.5 - 42.5 GHz:** BSS (Broadcasting Satellite Service)
- 46.7 - 46.9 GHz:** MSS (Mobile Satellite Service), also labeled as **FIXED** and **MOBILE**
- 47.0 - 47.2 GHz:** RN (Radio Navigation), also labeled as **FIXED** and **MOBILE**
- 47.2 - 47.5 GHz:** RN-S (Radio Navigation - Secondary), labeled as **MOBILE**

The chart also includes a label 'FSS (space-to-Earth)' in the 41-42 GHz range, which is part of the BSS allocation.

ABBREVIATION KEY

AM -	Aeronautical Mobile
BSS -	Broadcast Satellite Service
EES -	Earth Exploration Satellite
FSS -	Fixed Satellite Service
GSO -	Geostationary Orbit
MSS -	Mobile Satellite Service
NGSO -	Non-Geostationary Orbit
RA -	Radio Astronomy
RN -	Radionavigation
RN-S -	Radionavigation Satellite
SR -	Space Research
UVR -	Unlicensed Vehicular Radar